



Joint Report of the San Bernardino County Registrar of Voters and Sequoia Voting Systems Regarding the November 2, 2004 AVVPAT Sequoia VeriVote Pilot Project

Project Summary

After initial, conditional state certification of the Sequoia AVC Edge with VeriVote printers, Sequoia Voting Systems and the San Bernardino County Registrar of Voters' office worked with the California Secretary of State's office to deploy the first precinct-level use of voter verifiable paper records in California for the November 2, 2004 presidential election.

The project included the addition of three touch screen voting machines in one polling place at the Arroyo Verde Elementary School in the City of Highland. The equipment was in addition to the twelve voting machines previously assigned to the precinct by the county.

County staff was trained by Sequoia to install paper, operate the equipment and set-up the ballot. The county then trained the selected precinct's poll workers on the proper operation and procedures for the system.

Voters were not specifically directed to the VeriVote-equipped machines, but were given the option to select any available machine.

Voter response was universally positive. No voters or poll workers reported any problems or difficulties during the day and voters from neighboring Riverside County visited the polling place to offer their support for the new feature.

Timelines

The timeline for the project was extremely brief. Sequoia and the County appreciate the cooperation and support of John Mott-Smith and Michael Wagaman of the Secretary of State's office during the development of this pilot project.

Sequoia Voting Systems completed federal testing of the AVC Edge touch screen voting system with VeriVote printers on July 15, 2004. The system was used throughout the State of Nevada during their September 7, 2004 statewide primary election and was observed by scores of election officials from California and across the country. Sequoia subsequently submitted the system for California state certification and conducted functional testing at the Secretary of State's office September 29-October 1, 2004.

Approval for the project was granted by the Secretary of State's Voting Systems and Procedures Panel at their meeting on October 22, 2004 pursuant to coordination of details and the approval

of a project plan by the County and Sequoia. The conditional state certification of the system was signed October 27, 2004. Final approval of the project was granted on October 29, 2004.

Equipment Delivery and Training of County Staff

In the days prior to the election, Sequoia retrofitted eight AVC Edge units to enable the attachment of Sequoia VeriVote printers. The county was also provided with ten printers to ensure an adequate supply of equipment for the pilot project and any related demonstrations necessary for public education purposes.

Sequoia personnel trained the county staff how to use the equipment, including:

- Upgrading the firmware in the necessary Edge units to enable the VeriVote functionality
- Installing and removing VeriVote paper rolls at the warehouse
- Installing the tamper evident seals at the warehouse
- Setting up the printers at the polling place
- Training poll workers to set-up the equipment
- Training poll workers to randomly change printers on Election Day
- Training poll workers to break-down the equipment at the end of the voting day and return the printers to the county with the results cartridges from the precinct, and
- How to train voters to use the touch screens with the printers

Ballot Layout

The design of the ballot was essentially the same on the machines equipped with VeriVote printers as for the other machines in the precinct, but Sequoia provided phone support to the county to help walk through the various configuration options required to enable the use of the VeriVote printers on the three machines in the precinct.

Pre-Election Logic & Accuracy Testing

The county conducted standard pre-election logic & accuracy testing on the touch screen units during the weekend prior to the election.

Public Education

The County of San Bernardino helped inform voters and the local media about the pilot project with a press release distributed on October 29, 2004. Local newspapers and several members of the national media reported favorably about the pilot project.

Election Day

Poll Opening

Poll workers arrived at the precinct Election morning and set-up all three Edge with VeriVote units without any difficulty.

When the polls were officially opened, the zero totals tape printed on the VeriVote printers for inspection by poll workers. After the machine vote totals were confirmed to be zero, the machines were readied for voters.

Voting

Voters were permitted to vote on any open machine in the polling place. During peak periods voters went to the first available machine, regardless of the existence of a VeriVote printer.

Of the 1495 voters in the precinct, 270 cast their ballots on the VeriVote equipped Edge units.

At one point in the day, one voter requested the opportunity to vote on a paper ballot in lieu of using the electronic equipment. When informed that there was an AVVPAT-equipped machine available for use, he expressed his gratitude and gladly used the Edge with VeriVote to allay his prior concerns about electronic voting.

Voter comments were universally positive in response to the existence of the printers. In general, they found the touch screens easy to use, intuitive and enjoyable. There were no problems with the paper and no complaints about functionality or accessibility.

There were no objections to the use of the printers on the electronic voting equipment and several voters expressed support for the additional safeguard.

Rotation of Printers

As part of the project plan, poll workers were instructed to replace the printers during the day with a back-up VeriVote printer which was supplied in the polling place.

This task was conducted in the afternoon by the poll workers who required no additional support from the county state or vendor observers.

The process for swapping printers on the machines consisted of turning off the power on the machine, removing the VeriVote printer and replacing the printer with an additional printer that was already supplied in the polling place. After the printers were changed, the machine was powered-up and readied for use by subsequent voters.

Poll Closing

At the end of the voting day, the polls were closed by poll workers and the summary of results from each machine printed on the VeriVote printer. The printers were removed from the machines and returned to the county with the results cartridges and related precinct supplies.

Tabulation

The results cartridges from all of the voting machines were returned to the county and incorporated into the county vote totals on election night without any difficulties.

Observation

Throughout Election Day, voting at the Arroyo Verde Elementary School site was observed by representatives from the Secretary of State's Office, the San Bernardino County Registrar of Voters and from Sequoia Voting Systems.

The response from voters and observers was universally positive and supportive of the VeriVote printers.

Canvass of the Vote

The six printer tapes generated by voters on the three machines (including the two paper changes) were reviewed by the County Registrar of Voter for accuracy.

To manually recount every race on the ballot and adjust for human counting errors, three teams of two staff members worked two 8-hour days to complete the full recount of the paper records and confirm that the totals on the paper rolls matched the totals reported by the electronic tally with 100 percent accuracy in every race.

The manual recount was a time-consuming process that would benefit from the use of high-speed readers to help confirm the proper tally of the results. Sequoia is currently working with an external company to help develop a reader that will help expedite the recount process.

Additionally, it is clear that the inclusion of machine specific identification on each roll of paper would greatly improve the ease with which the paper records can be counted and compared for accuracy against individual machine totals. The lack of machine-specific ID numbers requires the re-counters to compare vote totals against the total votes from a precinct, but does not permit a machine-by-machine verification of accuracy.

Recommendation

Based on the successful completion of federal environmental testing, federal functional testing, state functional testing, successful conduct of the statewide primary and general elections in the State of Nevada and the successful completion of the San Bernardino County Pilot election, Sequoia and the County believe the State of California can be confident revising the current conditional certification of the Sequoia AVC Edge with VeriVote voting systems and granting full certification of the system.

As with past generations of voting technology, Sequoia will continue to work with existing customers in the State of California to identify, develop and properly certify future enhancements to continually improve the conduct of elections in the state.